

B.M. - Cut "□" in SE corner of the South Abutment wall of the N-S Railroad Bridge over Palatine Road. Bridge located ±2100' west of the center of Wolf Road. Elev. = 654.66

Existing Structure - Structure No. 016-2530 built as West Frontage Road over F.A.S. Route 116, Palatine Road, Section 110-1415 in 1963. The structure was widened in 2003. In 2006, the bituminous overlay was replaced with a reinforced concrete overlay, the approach "notch" was removed and replaced and preformed joint seals replaced the existing joint filler. The superstructure consists of 33"x36" PPC Deck Beams supporting a reinforced concrete overlay. The length of the structure is 65'-6" center of center of bearings. The existing deck width is 48'-4" out to out of deck. The deck is not skewed. The road will be closed during construction.

Salvage - Remove and reinstall existing parapet and bicycle railing.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

LOADING HL 93

Allow 50#/sq. ft. for future wearing surface

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinf.)

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi ($\frac{1}{2}$ " ϕ low relax strands)
 $f_{pbt} = 201,960$ psi ($\frac{1}{2}$ " ϕ low relax strands)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
4. Concrete Sealer shall be applied to the surface of the backwalls, abutment seats, and front face of new concrete on abutments.
5. The minimum thickness of the Concrete Overlay shall be 5 inches and varies as required to adjust for the new Profile Grade and Beam Camber.
6. The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the Beams when developing Construction Procedures for Removal and Replacement of the Superstructure.
7. If the Contractor's procedures for existing deck beam removal involves placement of heavy equipment on the existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Superstructures No. 1.
8. Slipforming of the parapets is not allowed.

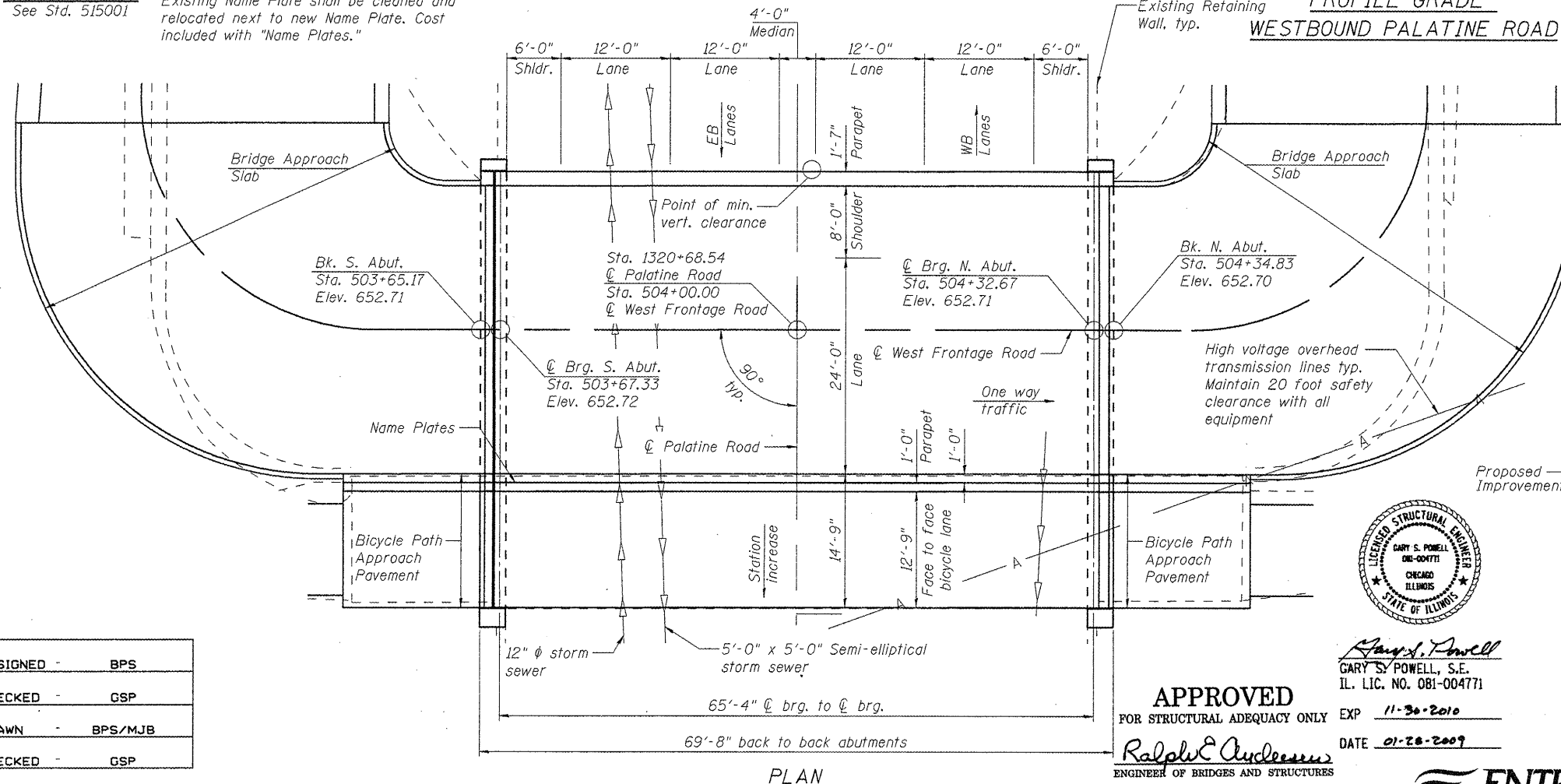
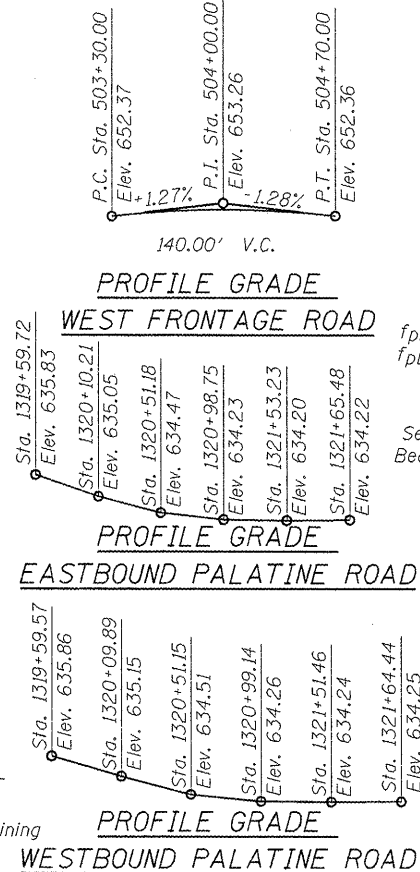
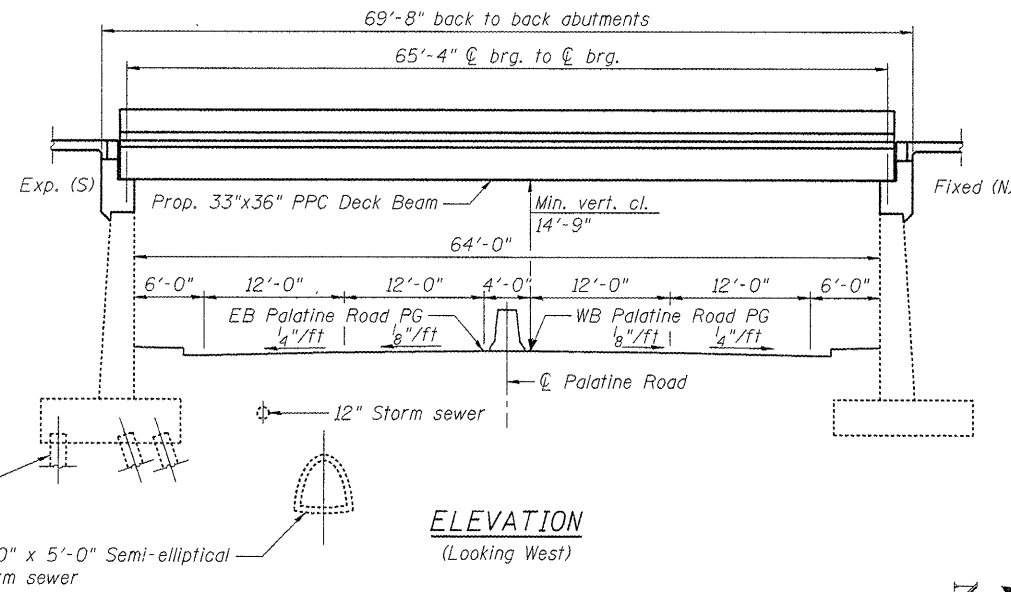
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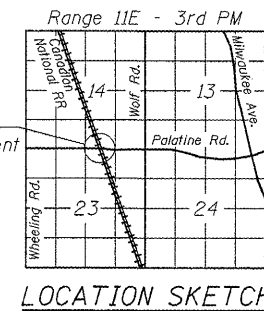
STATION 504+00.00
REBUILT 200X BY
STATE OF ILLINOIS
F.A.P. 305 SEC. 1415 B
LOADING HL93
STRUCTURE NO. 016-2530

NAME PLATE

See Std. 515001 Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with "Name Plates."



Item	Unit	Super	Sub.	Total
Removal of Existing Superstructures No. 1	Each	1		1
Concrete Removal	Cu. Yd.		40.8	40.8
Structure Excavation	Cu. Yd.		60	60
Concrete Structures	Cu. Yd.		69.7	69.7
Concrete Superstructures	Cu. Yd.	248.9		248.9
Bridge Deck Grooving	Sq. Yd.	615		615
Protective Coat	Sq. Yd.	864		864
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	3,192		3,192
Reinforcement Bars, Epoxy Coated	Pound	46,680	12,640	59,320
Bar Splicers	Each	96		96
Removing and Re-erecting Existing Railing	Foot	97.5		97.5
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	48.5		48.5
Concrete Sealer	Sq. Ft.		801	801
Bicycle Railing to be Removed and Reinstalled	Foot	66.5		66.5
Concrete Wearing Surface, 5"	Sq. Yd.	357.1		357.1
Asbestos Bearing Pad Removal	Each	26		26



GENERAL PLAN & ELEVATION
WEST FRONTAGE ROAD OVER PALATINE ROAD
F.A.P. 305/PALATINE ROAD
SECTION 1415 B
COOK COUNTY
STATION 504+00.00
STRUCTURE NO. 016-2530

DESIGNED	BPS
CHECKED	GSP
DRAWN	BPS/MJB
CHECKED	GSP

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph J. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

CARY S. POWELL, S.E.
IL. LIC. NO. 081-004771
EXP 11-30-2010
DATE 01-28-2009



SHEET NO. 1
15 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	1415 B	COOK	75	39
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60F60	